should be placed in front of a dead black screen and illuminated by a shielded lamp. A reading glass will aid considerably in observing the formation of the drops.

First determine the critical ratio, *i. e.,* the expansion at which drops just begin to form in dust-free air. Now produce expansions of gradually increasing amounts and note the cloud effects. A typical series is given in Table I.

As Thomson pointed out, after once drops have been formed in dust-free air they will form for some time after for expansions less than the critical value. Hence before another series is taken the bulb *HB* should be worked for moderate expansions to free the bulb *B* of nuclei. In Table II. are recorded two observations taken from each of ten different series similar to that given in Table I. The first observation, the critical expansion, is when drops first appeared, and the second is the next succeeding observation. This is recorded in the table to show how rapidly, yet uniformly, the drops increase by a slight increase in the expansion.

TABLE II

Critical Expansion in Dust-free Air

Tube	Zero	Upper Reading	Ratio	Cloud Effects
1	76	58 57	1.31* 1.33	A few large drops. A few hundred.
1	75	57 56.5	1.31* 1.33	Quite a cloud—large drops. A dense cloud.
1	76	58 57.5	1.31* 1.32	Just a few drops. About 50 drops.
2	65	50 49	1.30* 1.33	A few dozen drops. A dense cloud.
1	71	54 53	1.31* 1.34	A few dozen drops. A dense cloud.
2	65	50 49.5	1.30* 1.31	A few dozen. A dense cloud.
1	77	58.5 58	1.32* 1.33	A few drops. A few hundred.
1	77	58 57.5	1.33* 1.34	A few dozen. A few hundred.
1	77	58.5 58	1.32* 1.33	A few drops. A few hundred.
1	77	58.5 58	1.32* 1.33	A few drops. A few hundred.

Average of those marked (*) 1.31.

The average value of the critical ratio is 1.31. It should be noticed that the greatest variation from this mean is only 1.5 per cent. —a rather close agreement when we consider that the observations were made with two different tubes, and also that they extended over three or four weeks.

It was shown by Wilson that an ionizing agent is an important factor in the formation of drops in dust-free air. Various agencies, such as light from an incandescent lamp filament, the radiation from radium, the Roentgen rays, etc., were tried, each showing a decided effect. On placing a small glass capsule containing 10 milligrams of radium bromide of 200,000 activity within the bulb *B* a mean value of 1.27 was obtained for the expansion necessary to form drops. Care was taken to free the expansion chamber of dust particles, also to correct for the change in volume caused by the introduction of the small glass tube containing the radium. Again, with this simple apparatus it is not difficult to compare quantitatively the electrification when air is agitated with pure water, with a saturated common salt solution, and with mercury. The effects were all quite marked and the values obtained for the expansions could be repeated consistently at will.

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SYSTEM OF BASKETRY TECHNIC

ONLY in recent years have anthropologists interested themselves so generally in the industrial arts of primitive peoples. With this awakening interest has come the appreciation of the prominent place occupied by the cruder forms of weaving—namely, basketry—in the domestic economy of these simple households. It has assisted in the sheltering, the clothing and the feeding of tribes in many parts of the world. This wide distribution of locality, as well as that of usefulness, enables one to better understand the multiplicity of technics which are constructed of materials from so many climes, and in a manner to fit such a diversity of use. With the aggregation of

technics comes the necessity of uniformity in classification and terminology—that confusion may be avoided, and investigations be so recorded as to make possible scientific deductions, relationships of technics—and possibly of peoples.

The accompanying key to basketry, though in condensed form, is presented here with the thought that it may prove as helpful to the ethnologist unfamiliar with the work, as it has to the writer in serious study of collections from many parts of the world. An enlarged issue, fully explained and amplified, will appear later.

Acknowledgment must be made to the two authors who have previously treated basketry classification—Otis T. Mason and J. Lehmann—whose works have made it possible to take a step in advance, and record in clearer and more definite form this key to the technic.

The classification recognizes three kinds of basketry—plaited, woven and coiled ware, the division being based upon their construction or building process, as the elements plait, weave and coil. The fundamental process of the three distinct technics is easily discerned upon slight examination.

Plaiting constructs a mat-like surface by means of active elements only, which move over and under each other in regular order. No passive foundation elements are incorporated, neither are new elements added after the completion of the base, as those already furnished continue to plait the body of the basket.

Weaving is known by its upright warps extending from base to upper edge, as the surface is constructed on these passive warps, crossed by an active binding element, or weft. Two types of weaving—checked and twilled wicker—are less easily recognized because of the equal size of the warp and weft, but even here the distinct weft element added at the base may be traced encircling the basket.

Coiling can easily be distinguished by the spiral movement of its elements. This consists either of an active element, or of a passive element bound down by an accompanying active element.

This key approaches Mason's classification nearest at types of weaving, although here there are differences. Mason entirely excludes plaiting as a basketry process, while his types of coiled ware are based upon the components of the internal element—the foundations. The composition of the inner element is the last consideration, and a later division than is shown on this condensed key.

KEY TO BASKETRY TECHNIC

I. *Plaiting of Crossed Active Elements*

A. Parallel elements in two directions.
- 1. Over and under one ...... Checked Plaiting.
- 2. Over and under more than one, Twilled Plaiting.

B. Parallel elements in more than two directions, Lattice Plaiting.

II. *Weaving of Active Across Passive Elements*[1]

A. Parallel warps in one direction.
- 1. Weft interlaced .... Wicker Weave.
  - *a*. Warps coarser than weft, Plain Wicker Weave.
  - *b*. Warps of same size as weft.
    - *a′*. Over and under one, Checked Wicker Weave.
    - *b′*. Over and under more than one, Twilled Wicker Weave.
- 2. Weft twined.
  - *a*. Weft of two strands.
    - *a′*. Over one warp .... Plain Twine Weave.
    - *b′*. Over two warps . Twilled Twine Weave.
  - *b*. Weft of three strands.
    - *a′*. Plain weft .... Three-ply Twine Weave.
    - *b′*. Braided weft, Braid Three-ply Twine Weave.
- 3. Weft wrapped .... Wrapped Weave.

B. Parallel warps in more than one direction.
- 1. Weft interlaced .... Lattice Wicker Weave.
- 2. Weft twined.
  - *a*. Warps oblique, Oblique Lattice Twine Weave.
  - *b*. Warps vertical and horizontal, Vertical Lattice Twine Weave.
- 3. Weft wrapped .... Lattice Wrapped Weave.

III. *Coiling of Active Element or of Active Along Passive Element*

A. Active element only.
- 1. Weft spiral .... Spiral Lace Coil.
- 2. Weft twisting .... Twisted Lace Coil.
- 3. Weft interlacing ..... Interlaced Lace Coil.

[1] Active elements are weft. Passive elements warp.

4. Weft knotting .... Knotted Lace Coil.

B. Active and passive elements.

1. Weft spiral .... Twisted Coil.
2. Weft twisting .... Twisted Coil.
3. Weft interlacing .... Interlaced Coil.
4. Weft looping .... Looped Coil.

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FUSARIUM WILT OF CABBAGE

Wilt or "yellows" disease of cabbage, due to an undescribed species of *Fusarium,* has been known in this department for some years, as a trouble of minor importance, but it is now gaining such headway in some cabbage sections that active measures will have to be taken to combat it.

Some of the important symptoms are: retarded growth, wilting of the foliage, yellowing and dropping of the lower leaves. Later the upper leaves are affected and drop off, leaving the stem bare. In some cases one half of the leaf turns yellow while the other half retains its normal green color for a time. Microconidia are present in great numbers in the water-carrying vessels of the living plant. Soon after the death of the plant, pinkish masses composed of macroconidia form abundantly on the surface.

This disease was first observed by Dr. Erwin F. Smith in 1895. Experiments made by him in 1899 point to the soil as the source of infection. In 1900 Mr. W. A. Orton, of the U. S. Department of Agriculture, made field observations on the disease in South Carolina, and isolated the fungus, but did not carry on further work.

In April, 1908, the writer isolated the fungus from some material sent in from the south. During the past summer the disease has been reported from several states. In the kraut district of northern Ohio it has been very destructive.

Pot experiments were started in one of the greenhouses, to determine the parasitism of the fungus. After the cabbage plants had been growing in the pots for about ten days, pure cultures of the fungus were mixed into the soil, care being exercised not to injure the rootlets. In about three weeks some of the plants began to show symptoms of the disease. An examination of the plants a little later showed 83 per cent. of successful inoculations. None of the controls contracted the disease. The fungus was again recovered from one of the diseased plants, fresh soil was secured, young plants set out and inoculated as in the previous case with pure cultures of the *Fusarium* isolated from one of the previously inoculated plants. The greenhouse conditions for these later experiments were very unfavorable, but a fair percentage of the inoculations were successful. The controls did not contract the disease. This disease will be studied further.

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THE SEPARATED BLASTOMERES OF CENTRIFUGED EGGS OF ARBACIA

In recent years embryologists have been attempting to find out the rôle in development played by the visible materials of the egg (pigment, yolk, oil, etc.); whether they are organ-forming materials or merely passive inclusions. By no means has a uniform conclusion been reached.

In the eggs of *Arbacia,* the experiments of Lyon and Morgan show that the visible substances, by means of the centrifuge, can be thrown into any part of the egg without affecting in any way the embryonic development up to the pluteus. The simple experiment which I wish to record adds further proof that the visible substances in this particular egg are not organ-forming materials. Driesch and Morgan have shown that the one half, one fourth, one eighth and one sixteenth blastomeres of the sea-urchin egg are capable of developing into normal but smaller plutei. Lyon further showed in the centrifuged eggs of *Arbacia* that the visible substances separate readily into four distinct layers and that the first cleavage is nearly always at right angles to the stratification, but some few are parallel to it. The purpose of my experiment was to take those centrifuged eggs in which the first division plane was parallel to the stratification, separate the first two blastomeres and see